

WHAT IS CLAIMED IS:

1. A signal-processing apparatus for controlling the black level of a digitized luminance signal included in a picture signal, comprising:

a memory storing data for adjusting the black level of the luminance signal, and outputting said data according to a value of the digitized luminance signal;

a black area detection circuit detecting an amount of black area in the digitized luminance signal and generating a weighting signal;

a first multiplier multiplying the data output from the memory by the weighting signal to obtain a product; and

a second multiplier multiplying the digitized luminance signal by a value responsive to said product, thereby adjusting the black level of the digitized luminance signal.

2. The signal-processing apparatus of claim 1, wherein the memory stores data for adjusting the black level of the digitized luminance signal from a plurality of starting points, and the data output from the memory are selected according to a signal specifying the starting point, said signal being input together with the digitized luminance signal.

3. The signal-processing apparatus of claim 1, further comprising a subtractor subtracting said product from a predetermined value to obtain said value responsive to said product.

4. The signal-processing apparatus of claim 1, wherein the black area detection circuit compares the digitized luminance signal with a reference value, counts occurrences of a predetermined comparison result to obtain a count value

having a plurality of bits, and generates the weighting signal according to values of predetermined ones of said plurality of bits.

5. The signal-processing apparatus of claim 4, wherein the black area detection circuit receives a switching signal together with the digitized luminance signal, and the weighting signal varies from a maximum value to a minimum value over a range of count values selected by the switching signal, the weighting signal having said maximum value below said range of count values and having said minimum value above said range of count values.

6. The signal-processing apparatus of claim 5, wherein said range is a range in which certain upper bits of the count value have selected bit values.

7. A method of controlling the black level of a digitized luminance signal included in a picture signal, comprising the steps of:

- (a) storing data for adjusting the black level of the luminance signal in a memory;
- (b) outputting said data according to a value of the digitized luminance signal;
- (c) detecting an amount of black area in the digitized luminance signal and generating a weighting signal;
- (d) multiplying the data output from the memory by the weighting signal to obtain a product; and
- (e) multiplying the digitized luminance signal by a value responsive to said product, thereby adjusting the black level of the digitized luminance signal.

8. The method of claim 7, wherein said step (a) includes storing data for adjusting the black level of the luminance

signal from a plurality of starting points, and said step (b) includes selecting the data output from the memory according to a signal specifying the starting point, said signal being input together with the digitized luminance signal.

9. The method of claim 7, further comprising the step of subtracting said product from a predetermined value to obtain said value responsive to said product.

10. The method of claim 7, wherein said step (c) comprises the further steps of:

comparing the digitized luminance signal with a reference value;

counting occurrences of a predetermined comparison result to obtain a count value having a plurality of bits; and

generating the weighting signal according to values of predetermined ones of said plurality of bits.

11. The method of claim 10, wherein said step further comprising the steps of:

receiving a switching signal input together with the digitized luminance signal; and

selecting a range of count values according to the switching signal, the weighting signal having a maximum value below said range of count values, varying from the maximum value to a minimum value over said range of count values, and having the minimum value above said range of count values.

12. The method of claim 11, wherein said range is a range in which certain upper bits of the count value have selected bit values.